

CLAIMS:

1. A food composition for use in changing body composition and/or physical work capacity, said food composition including colostrum or a fraction thereof wherein said fraction includes colostrum-derived growth factors maintained therein following fractionation of the colostrum.
2. A food composition according to claim 1 further including casein.
3. A food composition according to claim 1 or 2 wherein the growth factor is IGF-1.
4. A food composition according to ^{claim 2} ~~claims 2 or 3~~ wherein said casein is colostrum-derived and maintained therein following fractionation of the colostrum.
5. A method of producing a food composition including colostrum or a fraction thereof including colostrum-derived growth factors maintained therein following fractionation of the colostrum for use in changing body composition and/or physical work capacity, said method including:
 providing colostrum prepared by a process including:
 subjecting colostrum to an ultra-filtration process to provide an ultra-filtered colostrum retentate;
 subjecting the ultra-filtered colostrum retentate to a spray drying process; and
 removing the spray-dried colostrum.
6. A method according to claim 5 further including a bacterial reduction step including centrifuging the colostrum in a flow-through centrifuge wherein the centrifugation is performed by controlling throughput and residence time of the colostrum during centrifugation.

7. A method according to claim 6 further including combining the centrifugation with low heat treatment by subjecting the colostrum to less than 72°C.

B 5 8. A food composition prepared by the method according to ^{claim 5} ~~any one of~~
B ~~claims 5 to 7.~~

9. A food composition according to claim 8 further including casein.

10 10. A food composition according to claim 9 wherein the casein is colostrum-derived following fractionation of the colostrum.

> B 15 11. A method of ^{comproven} changing body composition and/or physical work capacity, said method including administering an effective amount of a food composition according to ^{claim 1} ~~any one of claims 1 to 4 or 8 to 10.~~

B 12. A method of increasing tissue mass, said method including administering an effective amount of a food composition according to ^{claim 1} ~~any one of claims 1 to 4~~
B ~~or 8 to 10.~~

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13. A method of increasing fat utilisation, said method including administering an effective amount of a food composition according to ^{claim 1} ~~any one~~
B ~~of claims 1 to 4 or 8 to 10.~~

25 14. A method of reducing physiological fatigue and/or physiological perception of that fatigue, said method including administering an effective amount of a food composition according to ^{claim 1} ~~any one of claims 1 to 4 or 8 to 10.~~

B 30 15. A method of increasing height, said method including administering an effective amount of a food composition according to ^{claim 1} ~~any one of claims 1 to 4 or~~
B ~~8 to 10.~~

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16. A method of increasing recovery after exercise, said method including administering an effective amount of a food composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1}
17. A method of treating or preventing a disorder of the gut, said method including administering an effective amount of a food composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1}
18. A method according to claim 17 wherein the disorder of the gut is selected from the group including mucositis, gastrointestinal damage from administration of non-steroidal anti-inflammatory drugs, gastrointestinal damage from irradiation therapy, gastrointestinal damage from chemotherapy, damage from infection in normal and in HIV/AIDS patients caused by pathogens selected from the group including rotavirus, *E. Coli spp*, *Salmonella spp*, *Cryptosporidium spp*, *H. pylori*, damage from gut surgery, and damage due to disease such as crohn's disease, inflammatory bowel syndrome, coeliac disease, or cystic fibrosis.
19. A method of reducing muscle damage during exercise, said method including administering an effective amount of a food composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1}
20. A method of increasing physiological buffering capacity, said method including administering an effective amount of a food composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1}
21. A method of improving gut growth and development, said method including administering an effective amount of a food composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1}

22. A method of treating short bowel syndrome, said method including
 B administering an effective amount of a food composition according to ~~any one~~ ^{Claim 1}
 B ~~of claims 1 to 4 or 8 to 10.~~ _~

23. A method of improving vertical jump performance, said method including
 B administering an effective amount of a food composition according to ~~any one~~ ^{Claim 1}
 B ~~of claims 1 to 4 or 8 to 10.~~ _~

24. A method of improving the ability to generate peak power and peak
 10 force, said method including administering an effective amount of a food
 B composition according to ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1} _~

25. A method of increasing endurance exercise performance, said method
 including administering an effective amount of a food composition according to
 15 B ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1} _~

26. A method of reducing fat mass, said method including administering an
 B effective amount of a food composition according to ~~any one of claims 1 to 4 or~~ ^{Claim 1}
 B ~~8 to 10.~~ _~

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27. A method of improving the bioavailability of components in colostrum
 which lead to changed work capacity and/or body composition, said method
 including administering an effective amount of a food composition according to
 B ~~any one of claims 1 to 4 or 8 to 10.~~ ^{Claim 1} _~

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